



AU9215012

(12) PATENT ABSTRACT (11) Document No. AU-A-15012/92  
(19) AUSTRALIAN PATENT OFFICE

(54) Title  
WET TOWEL

International Patent Classification(s)  
(51)<sup>5</sup> A47K 007/03 A47K 010/16

(21) Application No. : 15012/92

(22) Application Date : 21.04.92

(43) Publication Date : 04.11.93

(71) Applicant(s)  
TSUNG-TAI CHEN

(72) Inventor(s)  
TSUNG-TAI CHEN

(74) Attorney or Agent  
SPRUSON & FERGUSON, GPO Box 3898, SYDNEY NSW 2001

(57)

A towel comprised of a double-layer body (10) sealed with thermoplastic films (20,21) with enclosed spaces (11,12) defined therein for holding a solid chemical substance (30) and, a liquid chemical substance (40) contained in PE bags (41). Breaking said PE bags by squeezing the towel causes said liquid chemical substance (40) to mix with said solid chemical substance (30) in making a chemical reaction for wetting and cooling or heating the towel.

**Claim**

1. A towel made comprised of two layers sealed together with at least one enclosed space defined therein for holding a solid chemical substance and a liquid chemical substance, said liquid chemical being

## WET TOWEL

### BACKGROUND OF THE INVENTION

The present invention relates to wet towels. More particularly the present invention relates to a wet towel which contains chemical substances that can be mixed to cause a chemical reaction in cooling or heating the towel.

5

Conventionally, a wet towel or tissue for use in cleaning the hand and the face after meal, was wetted before being packed in a plastic bag, and generally kept in a refrigerator (during the summer) or a steam box (during the winter) before use. Because a towel is wetted before being packed in a plastic bag, it may be getting dried easily for not being used within a short length of time. If a wet towel is used outdoors, it does not make cool. Further, a wet towel must be properly stored in a refrigerator or the like before its use, and therefore, high storage cost becomes inevitable.

10

15

The present invention has been accomplished under the aforesaid circumstances. It is therefore an object of the present invention to provide a wet

20

towel which is kept in a dry state for easy storage before its use. It is another object of the present invention to provide a wet towel which contains chemical substances for making the towel cool. It is still another object of the present invention to provide a wet towel which contains chemical substances for making the towel warm. According to the present invention, there is provided a wet towel comprised of a dried double-layer body sealed with thermoplastic films, with enclosed spaces defined therein for holding a solid chemical substance and, a liquid chemical substance contained in PE bags. Breaking the PE bags by squeezing the towel causes the liquid chemical substance to mix with the solid chemical substance in making a chemical reaction for wetting and cooling or heating the towel.

#### BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will now be described by way of example with reference to the annexed drawings, in which:--

Fig. 1 is a structural drawing of a towel embodying the present invention;

Fig. 2 is an elevational view of the towel of

Fig. 1;

Fig. 3 is a plan of the towel of Fig. 1; and

Fig. 4 is a structural drawing showing that an alternate folding method in forming the towel.

5      DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to Figs. 1 and 2, a towel is generally comprised of a body 10 formed by equally folding a piece of fabric, cloth or paper in two. The body 10 of the towel is properly sealed with thermoplastic films 20, 21 so that two enclosed spaces 11, 12 are separately defined therein for holding chemical bags 41 and chemical grains 30. The chemical bags 41 and the chemical grains 30 are put inside the enclosed spaces 11, 12 before the process of sealing.

10      The chemical bags 41 are respectively made from polyethylene with a chemical fluid 40 contained therein, which chemical fluid 40, when mixed with the chemical grains 30, causes a chemical reaction in making the towel cool or warm according to the substances used for

15      making the chemical fluid 40 and the chemical grains 30. According to the present invention, the chemical fluid 40 and the chemical grains 30 can be respectively as follows:

20

5

Chemical grains: Urea

$$\text{Fe} + \text{HCl} \longrightarrow \text{Fe}_2\text{O}_3 + \Delta \text{ heat} + 1/2\text{H}_2 + 1/2\text{Cl}_2$$

or

$$\text{CaCO}_3 + \text{HCl} \longrightarrow \text{NaCl} + \text{H}_2\text{O} + \text{CO}_2 \uparrow + \text{heat}$$

Referring to Fig. 4, therein illustrated is an alternate form of the present invention, in which one side edge of the body 10 is folded down and sealed for holding a chemical bag 41 and chemical grains 30.

The claims defining the invention are as follows:

~~What is claimed is:~~

1. A towel made comprised of two layers sealed together with at least one enclosed space defined therein for holding a solid chemical substance and a liquid chemical substance, said liquid chemical being contained in bags received inside each enclosed space, wherein breaking said bags by squeezing the towel causes said liquid chemical substance to mix with said solid chemical substance in making a chemical reaction permitting the towel to be wetted.

2. The towel of claim 1, wherein said solid chemical substance is urea; said liquid chemical contains 83% of water, 2% of hydrodel and 5% of proeylerl.

3. The towel of claim 1, wherein said solid chemical substance is iron powder; said liquid chemical is hydrochloric acid solution.

4. The towel of claim 1, wherein said solid chemical substance is calcium carbonate; said liquid chemical is hydrochloric acid solution.

DATED this TWENTY-FIRST day of APRIL 1992

Tsung-Tai Chen

Patent Attorneys for the Applicant

SPRUSON & FERGUSON

WET TOWEL

ABSTRACT OF THE DISCLOSURE

5 A towel comprised of a double-layer body (10) sealed with thermoplastic films (20,21) with enclosed spaces (11,12) defined therein for holding a solid chemical substance (30) and, a liquid chemical substance (40) contained in PE bags (41). Breaking said PE bags by squeezing the towel causes said liquid chemical substance (40) to mix with said solid chemical substance (30) in making a chemical reaction for wetting and cooling or heating the towel.

Figure 1, 2.

15012/92

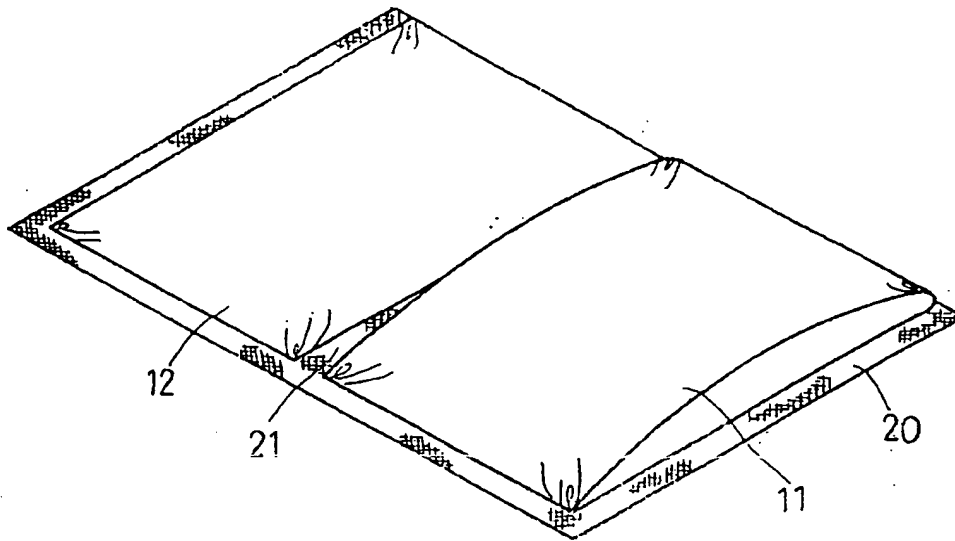


FIG. 2

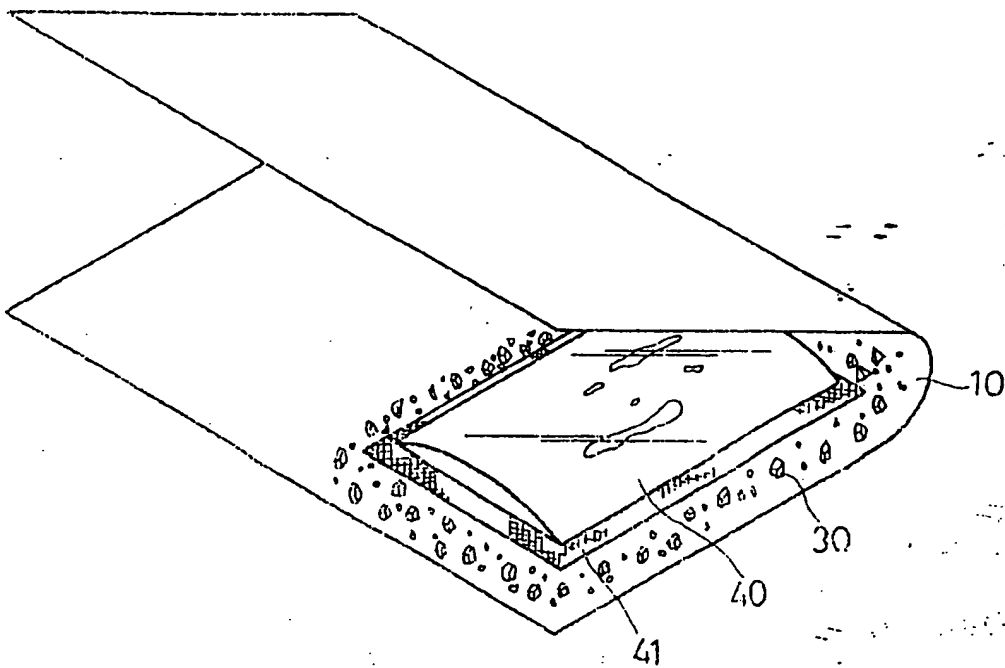


FIG. 1



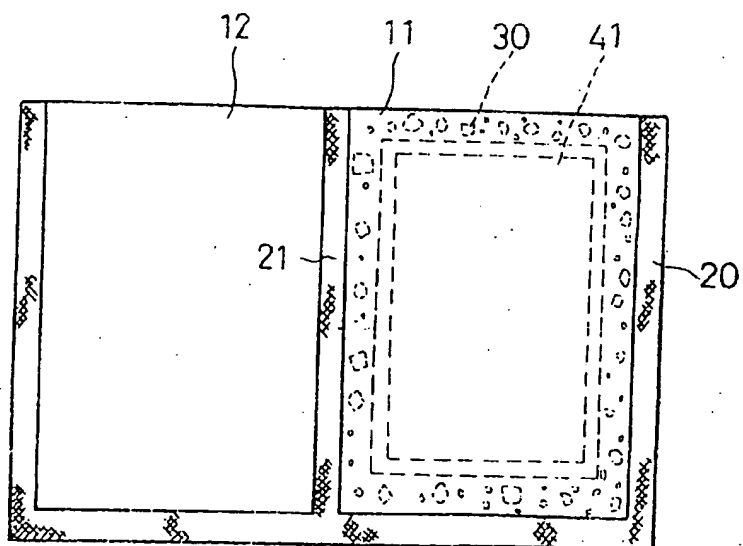


FIG. 3

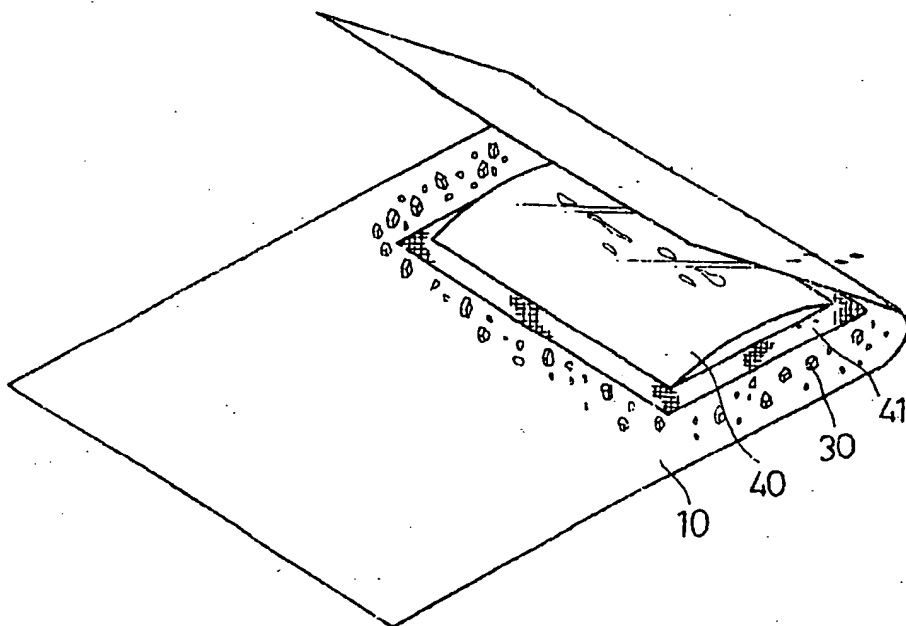


FIG. 4